

hundred residents are destitute and need immediate assistance. Several fields of recently planted corn are covered with from nine to twelve feet of water. Reports received from Lake Providence, La., 25th, state that the break in the levee at Alsalia, below Lake Providence, widens; there are three breaks between Alsalia and Goodrich's Landing, and four between Goodrich's and the Raleigh Place. The breaks are from one hundred to eight hundred yards wide, and increasing. The country from Melbourne down is all under water to depths from six to eight feet; it extends back for miles. There has been an immense loss of stock and household goods. No attention was paid to saving property when the break occurred, as it was a matter of life and death. It required every effort to save human life. The whole day is being spent in rescuing people. Many are in danger for want of boats to rescue them. Several children and men were drowned. The loss of life and property cannot be ascertained. Helena, Ark., 25th, river fell two inches to-day and the overflow in the city is about the same. Lieutenants Satterlee and Richards, detailed by the Secretary of War to examine into the condition of affairs here, report much destruction below and in the interior. The Ohio river reached its highest point at Cincinnati on 25th, when it was three feet below the danger-line or forty-seven feet on the gauge. The observer at Cincinnati, on the 20th, reports very heavy rains, causing rivers and streams to rise suddenly. Several coal barges broke from their moorings and a number of small bridges were carried away. The Cumberland river, at Nashville, was forty-five feet nine inches on the gauge from the 11th to 13th, or three feet nine inches above the danger-line. The observer at that station reports on the 6th, river rose fourteen feet four inches in twenty-four hours; 9th, river rose six feet four inches in twenty-four hours, and is seven inches above the danger-line; no damage reported; 10th, river three feet five inches above the danger-line. The river continued at this point above the danger-line until after the 15th. The heavy rains in northern Alabama, between the 6th and 10th, caused the Tennessee to overflow its banks near Chattanooga, resulting in considerable damage to railroad embankments. The Red river, at Shreveport, was highest on the 10th, 11th and 12th, where it was thirty-one feet one inch on the gauge, or one foot four inches above the danger-line.

HIGH TIDES.

Boston, 19th; New Shoreham, R. I., 18th; Delaware Breakwater, 19th; Little Egg Harbor, N. J., 17th, 18th; Flushing, N. Y., 16th.

TEMPERATURE OF WATER.

The temperature of water as observed in rivers and harbors at Signal Service stations, with the average depth at which the observations were taken, is given in the table on the right hand of chart ii. Observations on temperature of water were not taken on the following dates and at the following stations on account of ice in harbors: Milwaukee, 1st to 6th; Detroit, 2d; Duluth, 5th to 31st; Alpena, 1st; Marquette, 1st, 2d, 4th to 31st; Escanaba, frozen throughout the month; Burlington, Vt., lake frozen throughout the month. It will be seen that the mean of the maximum and minimum temperatures of water, correspond very nearly with the temperature of the air at the stations, as indicated by the isothermal lines on chart ii.

ATMOSPHERIC ELECTRICITY.

AURORAS.

The most widely observed display occurred on the 19th. This remarkable display was observed by stations along the northern boundary of the United States, from Eastport to Oregon, and was reported by the various stations as follows: Eastport, Me., 10.30 p. m. to midnight, faint light in northern sky, extending from northwest to northeast, and to an altitude of 20°; Gardiner, Me., 10.30 p. m. to 3.45 a. m. of 20th, very bright, with beams moving rapidly from east to west; Burlington,

Vt., 10 to 11.45 p. m., very brilliant with dark segment low down upon the horizon, bright arch, streamers shooting up to a height of from 20° to 45°, and of greenish color; Boston, 9.30 p. m. to 4 a. m., of 20th, faint auroral band along the horizon, extending 60° azimuth. At 2 a. m. it became very brilliant, with streamers shooting up to an altitude of 30° and moving slowly along the horizon from west to east; Springfield, 11.18 p. m., very faint, consisting of a slight glow and a few faint rays attaining an altitude of 10°. At 2 a. m. it was somewhat brighter, with an occasional faint ray; Albany, 20th, 12.10 a. m., pale yellow auroral light in northern sky; streamers observed at 12.25 and 2.10 a. m.; the sky, bordering the upper limit, was intensely dark; no dark segment beneath; still visible at 3.45 a. m. Harvard College, Cambridge, Mass., first noticed at 9.15 p. m. as a low, faint arch, streamers appeared soon after and were still visible at 11 p. m. Point Judith, R. I., 8 a. m. to midnight, faint auroral light in northern sky. Fall River, Mass., 10 p. m., aurora mainly in the northwest with a few streamers about 30° in length. Rowe, Mass., 10.30 p. m., North Volney, N. Y., 9.15 p. m., faint auroral light in northern sky. Ithaca, N. Y., first observed at 9 p. m. as a broad arch of light on northern horizon; at 10 p. m., beams extended upward to a height of 20° and soon disappeared; very faint at 11 p. m. Newport, Vt., during evening. Palermo, N. Y., very bright during evening. Rochester, N. Y., first observed at 9.30 p. m.; maximum brilliancy at 11.45 p. m.; arch of pale yellow 20° in height with an unusually low dark segment; disappeared at daybreak on the morning of 20th. Madison Barracks, N. Y., during evening. Oswego, 19th, 9.45 p. m. to 2 a. m. of 20th, consisting of dark segment surmounted by a diffuse light extending half way to the zenith; very bright at 1 a. m., in northeast with beams extending upward to an altitude of 80°. Alpena, Mich., 9.15 to 11.35 p. m. consisting of a diffused light with a few small streamers. Marquette, Mich., 8.20 p. m., aurora of pale yellow color, with beams having a quick lateral motion reaching an altitude of 45°; disappeared at 10 p. m. Northport, Mich., 8 to 10.30 p. m., extending from northwest to northeast with an arch about 30° in height and bright beams 40° in height. Fort Brady, Mich., 8 p. m., fine auroral display. Northfield, Minn., from dark until 7.30 p. m. Terry's Landing, Mont., during evening. Umatilla, Or., 8.55 to 10 p. m., presented a very bright and luminous appearance, but was partially obscured by clouds. Dayton, Wash. Ty., from 9.10 to 9.35 p. m., when display was obscured by clouds; it consisted of a pale white light. The next in importance was the display of the 8th, which was reported by numerous stations from Eastport, Me., westward to Bismarck, Dak., and southward to Fort Myer, Va. At many of the stations reporting, the displays were very brilliant and in some instances continued from early evening until the morning of the 9th. Displays of less importance occurred on the 10th, 14th, 15th, 18th, and 20th. At Burlington, Vt., a faint aurora was observed from 10 to 11.45 p. m. of the 4th; at Manitowoc, Wis., from 8 to 8.30 p. m. aurora with beams in northwestern sky; and at Ruggles, Ohio, on the 30th.

ATMOSPHERIC ELECTRICITY INTERFERING WITH TELEGRAPHIC COMMUNICATION.

Castroville, Tex., 6th, 7.32 p. m., a flash of lightning damaged the lightning arrester by burning the points. The report of thunder, which was very heavy was preceded by a sound resembling the discharge of a pistol. Bismarck, Dak., 19th. Rapid City, Dak., 4th, atmosphere so charged with electricity as to necessitate the cutting out of instruments. Fort Sully, Dak., 5th. Deadwood, Dak., 4th, a severe electric storm raged among the hills and on the plains. At times an electric charge would enter the office and appear as large luminous balls on the switch-board binding-screws. About 4.30 p. m., while the line was uninterrupted and working well, a peculiar hissing noise was audible for a few seconds, followed immediately by a loud crash, when the entire switch-board was enveloped in flames. No damage was done to the